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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/646,392 | 08/22/2003 | Dwight L. Engwall | 091-0186 | 9733 |
| 27431 | 7590 | 11/25/2005 | EXAMINER | |
| SHIMOKAJI & ASSOCIATES, P.C. 8911 RESEARCH DRIVE IRVINE, CA 92618 | | | AFTERGUT, JEFF H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1733 | |

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,392

Applicant(s)

ENGWALL ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 24, 26-28, and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by French Patent 2,579,130.

French Patent '130 as described with reference to Figure 2 suggested that it was known at the time the invention was made to apply fibers material from a placement head onto the interior of a mandrel. The reference taught that the mandrel 10 was capable of rotation about axis 12 and that the roller 11 was part of a material delivery head which was supported outside of the mold. The reference taught the placing of the composite material onto the outside mold surface on the interior of the mold 10 where the support mechanism was capable of orienting the application force perpendicular to the contact point of the surface which is lined up as illustrated by arrow 13. It was also possible to orient the contact roller 11 so as to meet the requirement that the tape be deposited directly upon the surface parallel to the same as indicated by arrow 14. This was accomplished with a tape laying device of the type depicted for example in Figure 1. The applicant is referred to page 9 of the translation of the document.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over French Patent 2,579,130 in view of Weiss.

French Patent '130 is discussed in detail above in paragraph 2 and applicant is referred to the same for a complete discussion of the reference. The reference failed to teach the specific manner in which one rotated the mandrel as depicted in Figure 2, however is clearly provided means for rotation of the mandrel as opposed to means for rotation of the fiber placement head. The reference clearly taught the use of a gantry to support the arm as well as a various other means to facilitate multiaxial movement of the placement head. The reference was silent as to the means to rotate the mandrel, however means for rotation of a mold which included a ring disposed on roller bearings for rotation of the same were known at the time the invention was made as evidenced by Weiss.

More specifically, Weiss suggested that one skilled in the art would have disposed three rings 30 about a mold 20 onto which one molded resin reinforced materials. The reference taught that the rings 30 were supported with the use of rollers 32 which were held up by brackets 34 (a bearing cradle) which supported

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the weight of the mold 20. The reference taught that the mold 20 was capable of rotation by rotation of the rollers 32 supporting the same and the into the interior of the same one disposed a spray gun 136 which was disposed on a boom which was placed inside the mold 20. The spray gun 136 deposited resin and fibers into the interior of the mold 20. As the reference to Weiss suggested that one skilled in the art would have employed the rings 30 associated with the hydraulic system for supporting the large mold 20 for rotation, it would have been viewed as a suitable means for facilitating the rotation of the mold (mandrel) of French Patent '130. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the techniques of Weiss to provide for rotation of the mold of French Patent '130 as such would have facilitated the rotation of the mold while additionally allowing for easy disassembly of the same.

With regard to the various dependent claims, the applicant is advised that the reference to French Patent '130 suggested the arrangement for the fiber placement device as well as all of the structure defined therein in the claims. The applicant is additionally advised that the association of the same with a gantry (a boom) in order to facilitate entry into the mold was clearly suggested by Weiss. Additionally, all of the structure of the ring for rotation of the mandrel was suggested by Weiss.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where

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the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/646,316. Although the conflicting claims are not identical, they are not patentably distinct from each other because the earlier allowed application recited that the application operation included multiple placement heads rather than a single placement device while the pending claims do not specify how many placement devices are employed. It would have been obvious to utilize a single placement head or multiple placement heads in the currently claimed operation.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is

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571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
November 22, 2005